STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-CC9	**Crossing Start Date:** 11/11/2023	**Crossing Completion Date:** 11/15/2023
Milepost: 294.5	**Pre-Con Assessment Date:** 11/04/2023	**Post-Con Assessment Date:** 11/16/2023
Station: 15556+96	**Stream Classification:** Ephemeral **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 5.5
County: Pittsylvania	**303(d) Impairment Listing:** Not Impaired	**Riffle:Pool Complexes Present?** No

Item #	Resource Crossing Conditions	N/A	YES	NO
1.	Were all applicable resource specific crossing conditions satisfied? Time of Year Restrictions (TOYR)? N/A Fish Relocation? N/A Mussel Relocation? N/A		X	
2.	Is this resource designated a wild or stockable trout stream?			X
3.	Which crossing methods were utilized during the stream crossing? *(Select one or more)* Dam & Pump, Flume, Cofferdam, Conventional Bore, Horizontal Directional Drill (HDD) Bore?	Dam & Pump		
4.	Was the top 1-foot (12-inches) of streambed substrate segregated and stockpiled separate from trench spoils?		X	
5.	Was excess material not needed for backfill removed and disposed of in an upland area?		X	
6.	Was the top 12-inches of backfill made with clean native stream substrate?		X	
7.	Was the pre-construction survey data provided and utilized during restoration in attempt to re-establish pre-construction contours?		X	
8.	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?			X
9.	Were impervious trench breakers/plugs properly installed within 25-feet of top-of-bank to prevent subsurface erosion to or from the resource area?		X	
10.	Was permanent seed and stabilization material (straw or matting) applied to riparian areas and stream banks prior to re-establishing flow to the impact area of the channel?		X	
11.	Was the time of disturbance minimized by conducting resource work continuously to completion?		X	
12.	Have civil surveys been scheduled to verify as-built conditions meet pre-construction conditions in accordance with the project Mitigation Framework and federal/state permit requirements?		X	
13.	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 – 4/30)?	X		
14.	Did any unauthorized discharges to unpermitted resources occur during the crossing? If so, explain the corrective actions implemented in the Comments section and include additional photos.			X

Item #	Biological Conditions	Pre-Con	Post-Con
15.	**Predominant Substrate Type (select one):** *Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay*	Gravel (0.1-2")	Cobble (2-10")
16.	**Channel Conditions:** **Rating:** *1-Optimal (80-100% stable banks), 2-Suboptimal (60-80% stable banks), 3-Marginal (40-60% stable banks), 4-Poor (20-40% stable banks), 5-Severe (0-20% stable banks, highly eroded or unvegetated banks)*	1 - Optimal	1 - Optimal
17.	**Riparian Buffer Zone within ROW and ≤50 ft. from Stream Top-of-Bank:** **Rating:** *1-Optimal (60-100% heavy vegetative cover), 2-Suboptimal (30-60% mixed vegetated coverage), 3-Marginal (<30% vegetative coverage), 4-Poor (Mowed/maintained area or farmland, impervious area, sparsely vegetated coverage, etc.)*	1 - Optimal	1 - Optimal
18.	**Instream Habitat Conditions:** **Examples:** *Varied substrate sizes, varied combination of water velocities/depths, presence of woody/leafy debris, stable substrate with low amount of mobile particles, low embeddedness, shade protection, undercut banks, root mats, submerged aquatic vegetation.* **Rating:** *1-Optimal (Habitat conditions present in >50% of resource), 2-Suboptimal (Habitat conditions in 30-50% of resource), 3-Marginal (Habitat conditions in 10-30% of resource), 4-Poor (Habitat conditions in 0-10% of resource)*	3 - Marginal	3 - Marginal
19.	**Channel Alterations:** **Examples:** *Straightened channel, non-MVP stream crossings, non-native riprap/rock along banks, concrete/gabions/concrete block, manmade embankments, constrictions w/in channel, livestock or agricultural impacts.* **Rating:** *1-Negligible (unaltered/natural stream), 2-Minor (20-40% of resource disrupted by channel alterations), 3-Moderate (40-80% of resource disrupted), 4-Severe (>80% of resource disrupted)*	1 - Negligible	1 - Negligible

Comments/Remarks

11-04-20203: Pre-construction meeting. The Precision foreman is D. Denton, and the MVP EI is J. Gresham. During the meeting, the buffer zones were established. The crossing method will be an open cut. The work is anticipated to commence on Tuesday, 11-07-23. -K. Douglas

11-10-2023: DEQ was present for a site visit. The crew from Hoover was blasting to aid with bedrock removal. Topsoil was excavated and segregated. The stream bed substrate was stripped and covered in geotextile fabric. The dam and pump around and the energy dissipation system was installed. Excavation in the resource is anticipated to begin on Saturday, 11-11-23. -K. Douglas

11-11-2023: The dewatering structure was erected. DEQ was present for a site visit. Construction of the resource crossing construction began. The soil was stripped and stockpiled. The top 12-inches of substrate was segregated and covered with geotextile fabric. The top 10-inches of topsoil was segregated. The trench was expanded, and the spoils were relayed to upland areas. Heavy rock was encountered which has slowed excavation. Sandbags were placed in the trench. -K. Douglas

11-13-2023: The pipe tie-in was lined up and positioned. The CIS was welded. The dewatering structure was functioning as designed. -G. Aceves

11-14-2023: An error was found on the CIS weld which will need to be repaired. The weld was QA/QCed, sandblasted, coated and jeep tested. Trench breakers were installed within 25-feet from the top of bank to prevent erosion to or from the resource area. The crew began padding and backfilling the trench. -G. Aceves

11-15-2023: The crew continued to backfill the trench. The stream substrate and stream bank were restored. Survey crews on site were assisting in the restoration of pre-construction contours. The environmental crew seeded the stream bank with riparian seed and installed erosion control blanket. The survey crew also assisted in restoring the swell on the CIS. The post-construction auditor assessment was conducted. -G. Aceves

No impacts to biological conditions or unauthorized discharges were observed during the crossing activity.

In accordance with the Mountain Valley Pipeline Consent Decree, Case No. CL18006874-00, (Issued October 11, 2019) this independent report was completed to document the on-site monitoring of instream invertebrate and fisheries resources during all construction activity related to waterbody and wetland crossings, and document instream conditions and any impacts to the resources.

This report was written by	George Aceves		11/16/2023
	Print Name	*Signature*	*Date*

Required Photos

Photo Description: Downstream view of permitted impact area during pre-construction assessment.

Photo Description: Conditions of the downstream area outside the ROW during pre-construction assessment.

Photo Description: Downstream view of permitted impact area during post-construction assessment.

Photo Description: Conditions of the downstream area outside the ROW during post-construction assessment.

Optional Additional Photos

Photo Description: Segregated topsoil and stream bed substrate enclosed in geotextile fabric.

Photo Description: An overview of the dewatering structure installed on the GAS.

Photo Description: Survey conducted for the stream restoration.

Photo Description: Riparian seed mix installed during restoration.